



**COMMONLY  
USED INSTRUMENTS  
AND  
PROCEDURES IN**  
*O&G*

Arkib  
RG  
101  
S681  
2018

SOE LWIN  
TIN MOE NWE  
MYAT SAN YI

P KHIOMAT MAKLUKAT AKADEMIK  
UNIMAS



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# COMMONLY USED INSTRUMENTS



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BY  
SOE LWIN  
TIN MOE NWE  
MYAT SAN YI

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Tin Moe Nwe,  
Myat San Yi, 2018

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## FOREWORD

Faculty of Medicine and Health Sciences is committed to produce a competent and compassionate graduate to meet the health care needs of the community through educational excellence and research of international standards. There is a need to ensure that graduates during their study in medical school are well equipped to handle common instruments and procedures in Obstetrics and Gynaecology. The authors have prepared the book as a user - friendly handy and is mostly illustrated for the reader to understand the commonly used instruments and procedures in the field of basic Obstetrics and Gynaecology (O&G) .

I would also like to congratulate the authors for their commitment in coming up with this first edition.

I hope medicine and nursing students will benefit and find the book useful during their Obstetrics and Gynaecology posting not only for the preparation for the O&G clinical examination but also for future practice as a physician.

Prof Dr. Ahmad Hata Rasit

Dean

Faculty of Medicine & Health Sciences  
Universiti Malaysia Sarawak

## PREFACE

This book is prepared for the students of the Faculty of Medicine and Health Sciences (FMHS), Universiti Malaysia Sarawak (UNIMAS), but it can be useful for medical students and nursing students studying elsewhere. Not only will it serve them in medical school but it will also be of great value during their house staff training.

During their course of study, medical students rarely have the chance to observe surgeries being performed. Even when the chance presents itself, most surgeons and nurses do not have much time to explain and describe each of the surgical tools and procedures used. Moreover, although many of the procedures are performed in Outpatient Department (OPD) clinics, students have very limited opportunities to learn each of them.

Therefore, the purpose of this book is to familiarize medical students with the instruments and procedures that are commonly used in the field of Obstetrics and Gynaecology (O&G) in the hopes of preparing them for their surgical careers.

In this book, the detailed history of each of the surgical instruments are not provided. Instead, the information has been organized so that students can easily access the essential details about these surgical tools.

Furthermore, some chapters describe human anatomy along with the instruments and procedures to help students in recalling some information they have already learned.



Lastly, we hope that this book will be a useful resource for medical and nursing students from any university and welcome any comments to improve our book.

We are grateful to our colleagues who have made helpful comments and encouraged us to publish this book for the Faculty of Medicine and Health Sciences (FMHS), UNIMAS medical students and nursing students.

Finally, this book would never have been completed without the untiring efforts, skill and ever-cheerful countenance of Consultant and Head of Department of Obstetrician and Gynaecologist Professor Dr. Haris Njoo Suharjono.

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This book is written by the following FMHS, UNIMAS lecturers  
who have many years of teaching experience.

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**Associate Professor Dr. Soe Lwin**

M.B.B.S (Yangon), M.Med.Sc (O & G) (Yangon)

**Associate Professor Dr. Tin Moe Nwe**

M.B.B.S (Yangon), Diploma in Medical Education (Yangon)

Ph.D. (Anatomy) (Japan)

**Dr. Myat San Yi**

M.B.B.S (Yangon), M.Med.Sc (O & G) (Yangon), MRCOG (UK)

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My heartfelt thanks to several people who have helped in many ways from the start to the end. It will be hard to mention in words as their sincere assistance are invaluable. In the very first instance I would like to thank all our contributors who are expert in their respective fields and have devoted their valuable time towards producing this book. I thank my lovely wife, who has supported this work by giving her valuable suggestion and encouragement at all times. My sincere thanks to our Senior Consultant and Head of Department of Obstetrics and Gynaecologist Professor Dr. Haris Njoo Suharjono from Sarawak General Hospital, who has also given valuable suggestions and comments. I also thank my colleagues at Obstetrics and Gynaecology Department (FMHS, UNIMAS), who have helped in preparing this book. Last, but not the least I thank my staff at the labour ward and operation theatre of Sarawak General Hospital who have assisted in collecting the instruments and taking photos in preparation of this book. My heartfelt gratitude to proof-reader O & G Specialist Dr. Nurulhuda Samsudin from Sarawak General Hospital, reviewer Associate Professor Dr. Si Lay Khaing (Consultant O & G) from University of Malaya and UNIMAS Publisher for accepting this work to be included as UNIMAS publication.

Soe Lwin

## GENERAL KNOWLEDGE/TERMINOLOGY FOR SURGICAL INSTRUMENTS

<b>Non traumatic</b>	- Without trauma to the tissue/organs
<b>Traumatic</b>	- Causing injury by penetration or crushing
<b>Dilatation</b>	- Enlarging an opening in a progressive manner
<b>Dissection</b>	- Process of separating tissues through anatomical planes by using sharp or blunt instrumentation
<b>Grasping</b>	- Holding in a traumatic or non-traumatic manner
<b>Retraction</b>	- Stabilizing a tissue layer in a safe position for exposure of a part
<b>Sharp</b>	- Instrument with a cutting edge or pointed tip(s) that is used to cut or dissect tissue
<b>Excision</b>	- Removal of tissues by surgical cuts
<b>Incision</b>	- Surgical cut made into a tissue or organ
<b>Drainage tube</b>	- A tube that is inserted into a body cavity for drainage of fluid
<b>Trocar</b>	- A device used for penetration of tissue layers. It is commonly used for percutaneous endoscopy. It is used as a temporary pathway for gases, other instrumentation, or the removal of an organ or substance

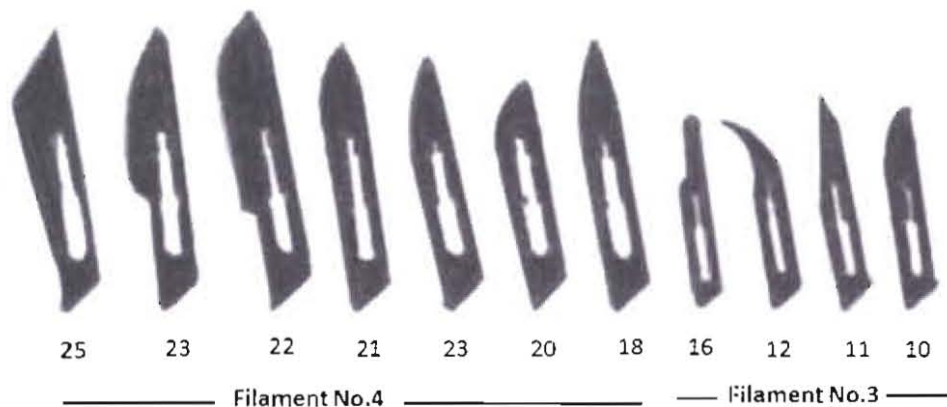
## Classification of the instruments

- Cutting and Dissecting
- Grasping and Holding
- Clamping and Occluding
- Exposing and Retracting
- Suturing and Stapling
- Viewing
- Suctioning and Aspirating/curettage
- Dilating and Probing/curettage
- Measuring
- Micro-instrumentation

**Important point** in operation is sharp instruments, swabs and related items should be counted **four times** under these conditions: -

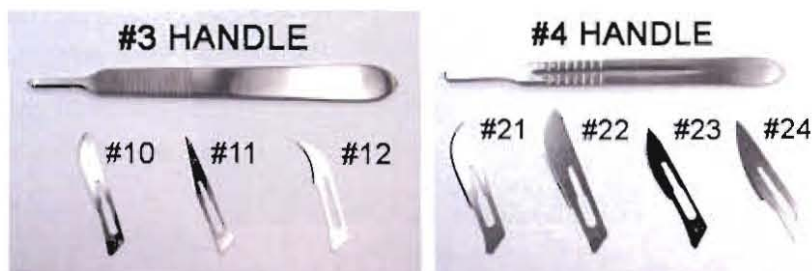
1. Prior to the start of the procedure
2. before closure of a cavity
3. before wound closure and
4. at skin closure or the end of the procedure.

## SCALPEL (BLADE)

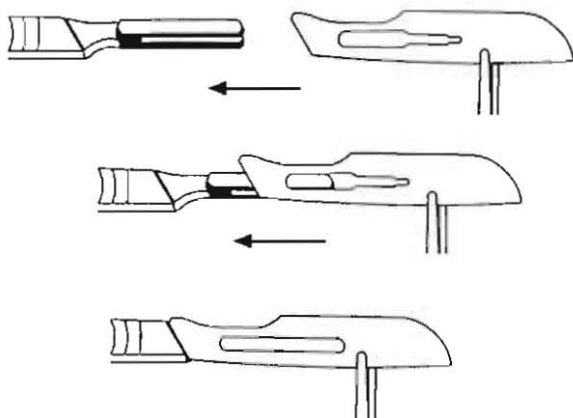


- This is used for dissecting or making an incision.
- It is the best instrument for division of tissue.
- It is less traumatic to surrounding tissues.
- It should be held in a way that will permit full control of the instrument and freedom of movement.
- It composed of the blade and the blade handle.
- There are a number of different blades and each has a different function.
- No. 10: general dissecting
- No. 11: stab incision
- No. 12: Tonsil dissection
- No. 15: plastic dissection
- No. 21: skin incision

### Blade holder



- There are many sizes of blade holder.
- In surgery the commonly used blade holder are No. 3 and 4.
- It holds the scalpel and acts as a handle.

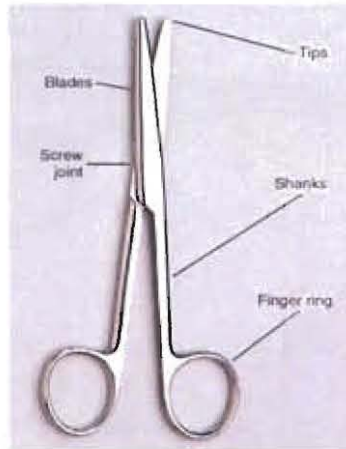


Above diagram shows the correct way and safe to assemble the blade to the blade holder.



This photo shows the correct way to handle the blade holder.

## SCISSORS



Four different types

- i. Utility - Cut material that may dull the blade
- ii. Suture - Remove suture material
- iii. Surgical - Cut soft tissue, different sizes, blades can be straight, curved, blunted or pointed
- iv. Dissecting - Separate and differentiate tissues especially for fine dissection

### Lister Bandage Scissors



- Used to remove bandages and dressings.
- Probe tip is blunt; inserted under bandages with relative safety.



## Iris Suture Scissors



- Used to remove sutures.
- Blade has beak or hook to slide under sutures.

## Mayo straight scissors



## Mayo curved scissors



- Used when cutting through large muscle masses, cartilage, or other non-delicate tissue, tough tissues.
- Mayo curved scissors, ob-gyn (to cut ligaments, uterus), surgical (fascia, muscle, breast)
- Blades are thick and  $\frac{1}{3}$  of instrument length
- Can be curved or straight

### Medzenbaum scissors



- Scissors are used to cut the delicate tissues, such as peritoneum, intestine.
- Blades are thin, delicate, and  $\frac{1}{4}$  of the overall length.
- Blades can be straight or curved.

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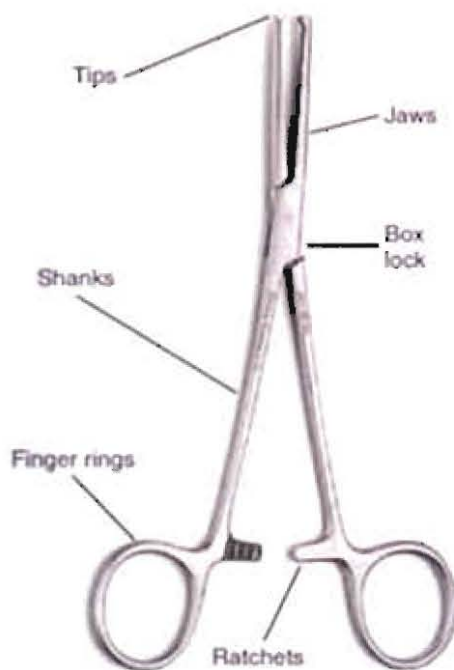
## FORCEPS

### Artery forceps

- To clamp/grasp the artery to achieve haemostasis by compressing the blood vessels and occlude the hollow organs for hemostasis or to prevent spillage of contents.
- There are many type of artery forceps.
- They vary in size for use on fine, delicate vessels to large vascular pedicles.

- Artery forceps can also be used to grasp tissues, sutures and other prosthetic materials.

## ARTERY FORCEPS



### Curved artery forceps



### **Straight artery forceps**



These are used as hemostats to grasp the blood vessels and arrest the flow of blood.

### **Mosquito artery forceps**



Used to hold delicate tissue or compress a bleed vessels during fine surgery.

### Allis tissue holding forceps



- It is used to grasp tissue, fairly traumatic to the tissue or organs.
- Used for grasping skin such as the linea alba or tissue being removed from patient (e.g. tumor, skin, etc.)
- Available in short and long sizes.
- A "Judd-Allis" holds intestinal tissue; a "heavy Allis" holds breast tissue.

### Babcock forceps



- To grasp delicate tissues eg: soft tissue, lymph nodes, fallopian tubes, ovary, intestine and appendix, etc:
- Available in short and long sizes.
- Prevent trauma to the tissue or organs.

### Kocher tissue holding forceps



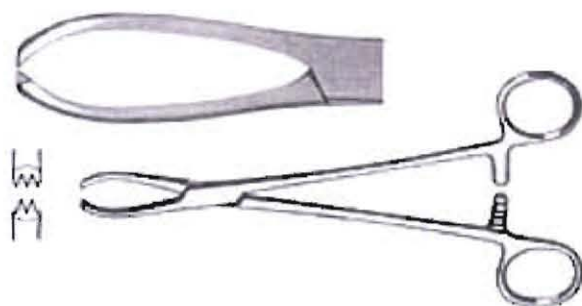
- It is used to grasp heavy tissue. May also be used as a clamp. The jaws may be straight or curved. (Other names: Oschner).
- It has a hook at the tip of the blade.

### Lister Sinus forceps



- It is commonly used for inserting or removing packing in the sinus cavity e.g. perineal abscess
- To wider to open the abscess for proper drainage of the pus.
- This product is straight with serrated tips and a length of 7 inches.
- It has no lock at the handle.

### Littlewood forceps



- Traumatic grasping clips.
- Typically used in gaining entry into the abdomen during the insertion of the umbilical port during laparoscopy to grasp the rectus sheath or umbilical cicatrix.
- Also used to hold the anterior and posterior lip of vaginal vault during vault closure in total abdominal hysterectomy.

### Lane forceps



- It is designed for holding bones.
- These heavyweight forceps have long **ratcheted** handles and curled-up handle end to facilitate traction.
- The blades enclose a diamond-shaped aperture when closed and have deep spikes.

### Sponges forceps



- Sponge forceps handle sponges, gauzes, or sensitive medical supplies.
- Sponge forceps to hold antiseptic cotton swabs and gauzes before the surgery.
- Used to remove the product of conception (POC) at the cervical os in case of incomplete miscarriages.
- Used to avulse the pedunculated endocervical polyp.

### Towel clip forceps



- Penetrating design
- Used to secure drape to the patient by clip the towel and allow to exposure of the operative site
- Available in 3 1/2" or 5 1/2" size